VZ-LINK MAGAZINE

NEW ZEALAND

VZ 300/200

COMPUTER USERS CLUB

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FROM ME TO YOU

Well,as promised here we are with the February issue of VZ LINK in February (believe it or not).

I would like to thank Ken Clarke and David Lambourn for the material which appear's in this newsletter.
I would also like to thank Ken for the wonderful artwork including the cover.

Included with this issue is the much awaited Questionnaire.
Please full it in and return to me as soon as possible.
I hope to have the next Meeting/Workshop at the end of March.
This depend's on the input from this questionnaire.

In the last couple of issue's I have included a command,s conversion sheet on the back cover.
However I have decided to stop printing these because of the size of the type.
They have to be reduced to fit and the result is a very small print.
If you would like copies,I can enlarge them for you.

URGENTLY REQUIRED

Does anyone have a spare Printer interface for sale.
One of our younger members needs one to use with homework studies.
Can swap with a memory expansion or buy.Contact me if you can help.

Do not forget those items for the newsletter.We still need what ever you can give us.

See you next issue.

MOTOR SPORT CONTINUED

```
2449 POKECF,134:POKECF+1,137:POKECF+32,137:POKECF+33,134
2450 C$=INKEY$:C$=INKEY$:BV=PEEK(26877)
2460 IFBV=254GOTO1220
2480 IFC$=",",ANDCF<28958THEN2485ELSE2490
2485 CX=CF:CF=CF+1:GOTO2498
2490 IFC$="M"ANDCF>28939THEN2495ELSE2449
2495 CX=CF:CF=CF-1
2498 POKECX,96:POKECX+1,96:POKECX+32,96:POKECX+33,96
2500 GOTO2449
2515 POKE28948,FL:POKE28980,FL:COLOR1
2626 X=USR(X):SOUND16,1;3,1
2695 FORXX=1TO9:POKE29024+10+XX,96:NEXT
2696 POKECF,96:POKECF+1,96:POKECF+32,96:POKECF+33,96
2700 K=10:L=10:BP=1:GK=0:GS=200:LA=0:TS=0
2710 IFLE$="1"THENCF=CF+96:XT=29055+31
2720 IFLE$="2"THENCF=CF+32:XT=28991+31
2730 IFLE$="3"THENCF=CF-96:XT=28863+31
2740 IFLE$="4"THENCF=CF-192:XT=28767+31
2750 GOTO812
3010 IFSC(DV)>HSTHEN3030
3020 IFSC(DV)<HSTHEN3045
3030 HS=SC(DV):NH(DV)=SC(DV):SC(DV)=0:HS$=SC$(DV)
3040 RETURN
3045 NH(DV)=SC(DV):SC(DV)=0
3050 RETURN
3055 CLS:PRINT:PRINT"     SCORE     TABLE"
3060 FORIP=1TODV-1:PRINTSC$(IP);TAB(10);NH(IP)
3070 NEXT
3080 PRINT:PRINT"AND THE WINNER IS......"
3090 PRINT:PRINTHS$
```

WRITTEN BY M BAXTER

IN THIS GAME YOU USE ARROW KEYS TO STEER A CAR DOWN A WINDING ROAD.WHEN YOU RUN THE GAME HIT A NUMBER 0-9 FOR HOW MANY DRIVERS YOU WISH TO PLAY.THEN ENTER THEIR NAMES.
WHEN EVERYONE HAS PLAYED A SCORE TABLE WILL BE DISPLAYED SHOWING THE RESULTS.
THE SHAPE OF THE ROAD AND THE LOCATION OF CERTAIN DANGERS ARE CHOSEN AT RANDOM.

GOOD LUCK

```
3094 PRINT:PRINT"PRESS <[illegible]> FOR NEW GAME"
3095 PRINT"OR PRESS <[illegible]> TO END GAME"
3096 IFINKEY$="E"THEN:RUN"MENU"
3097 IFINKEY$="R"THENRUN
3098 GOTO3096
3250 COLOR,0:DIMSC(DE):DIMSC$(DE)
3255 CLS
3260 FORIP=1TODE
3265 PRINT@128,"                                    "
3270 CLS:PRINT@128,"DRIVER ";IP;:INPUTSC$(IP)
3271 IFSC$(IP)=""THEN3270
3275 FORIO=0TOLEN(SC$(IP))
3276 IFIO>9THEN3265
3277 NEXTIO
3280 NEXTIP:DL=0:DV=1
3290 GOTO3
3460 POKEIP,96
3490 PRINT@0,"[illegible]"
3500 IFINKEY$="O"THEN3520
3510 GOTO3500
3520 PRINT@0,"[illegible]"
3530 FORVS=1TO300:NEXT:RETURN
3600 CLS
3602 PRINT:PRINT" [illegible] - PAUSE ON     [illegible] - PAUSE OFF"
3610 PRINT@104,"PICK YOUR LEVEL"
3620 PRINT:PRINT
3630 PRINT"          1=HARD"
3640 PRINT"          2=AVERAGE"
3650 PRINT"          3=EASY"
3660 PRINT"          4=BEGINNER"
3661 PRINT@330,"";:INPUTLE$
3665 LV=VAL(LE$)
3670 IFLV>4ORLV<1THEN3600
3680 CLS:RETURN
3690 FORL=0TO311STEP32
3691 POKE28672+L+31,128
3692 PRINT@L,"                                    "
3693 NEXT
3694 FORL=29152TO29183:POKEL,128:NEXTL
3695 PRINT@234,"*[illegible]*":PRINT@202,"*************"
3696 PRINT@266,"*************"
3697 PRINT@424,"BY M AND G BAXTER"
3700 FL=191:FI=128:FN=28672:RE=FL:RP=10
3701 FORL=1TORP:FORYU=FNTO28703STEP2:POKEYU,FL:POKEYU+1,FI:NEXT
3702 FORYU=28703TO29183STEP64:POKEYU,FL:POKEYU+32,FI:NEXTYU
3703 GOSUB3850
3704 FORYU=29183TO29152STEP-2:POKEYU,FL:POKEYU-1,FI:NEXTYU
3705 GOSUB3850
3706 FORYU=29152TO28704STEP-64:POKEYU,FL:POKEYU-32,FI:NEXTYU
3789 IFFI=RETHENFL=RE:FI=159:GOTO3791
3790 IFFL=RETHENFI=RE:FL=175
3791 NEXTL
3792 PRINT@234,"              ":PRINT@423,"                    "
3793 PRINT@202,"              ":PRINT@266,"                "
3801 PRINT@353,"[illegible]"
3805 PRINT@295+128,"NO. OF DRIVERS 0-9"
3806 PRINT@33,"[illegible]"
3810 PRINT@231-128,"<- MOVE CAR LEFT"
3812 PRINT@225,"[illegible]"
3815 PRINT@359-64,"G TO START RACE"
3820 PRINT@295-128,"-> MOVE CAR RIGHT"
3830 RP=1000:GOTO3701
3850 DE$=INKEY$
3860 DE=VAL(DE$)
3865 IFDE>0ANDDE<10THEN3250
3875 RETURN
```

GETTING TO GRIPS WITH YOUR JOYSTICK.

- BY DAVID LAMBOURN.

Juggling that Joystick for greater enjoyment of all those Programs in basic that just don't support this much forgotten piece of hardware, is a Piece of cake!

To put it simply, look at the listing, add a few lines at this point and --- Bingo!

It is not necessary to separate the keyboard and joystick into an either/or set-up. Both can co-exist and run in Parallel so you can change over in the middle of a game, if wanted. Left and Right Joysticks can also be Programmed to run in tandum. Up to all eight DIRECTIONS, ARM and FIRE can be added to the Program.

The Points to remember are - to assign a variable a value suitable to the Joystick usage required, Provide conditional statements that sense or read the Joystick Play, and Put the extra lines in with the existing INKEY$ statements (remembering to keep it all within the scanning loop)

Here, let me illustrate.

The following lines are taken from 'ST GEORGE & THE DRAGON', one of my favourites. The heavy Print being the added lines [Note that the loop back in line 450 has been changed from 427 to 425]

```
410 Y=0
420 X=0
425 J=(INP(34)AND31)
427 U=(INKEY$="U")
430 X=X-(INKEY$=",")+(INKEY$="M")
435 IFJ=27,X=-1ELSEIFJ=23,X=1
440 Y=Y-(INKEY$=" ")+(INKEY$=".")
445 IFJ=30,Y=-1ELSEIFJ=29,Y=1
450 IFX=0ANDY=0,425
```

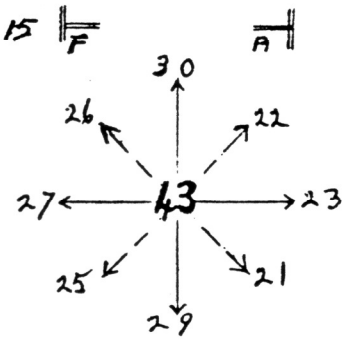
See diagrams below for explanations of directions of these numbers.

These diagrams help illustrate how to have the two Joysticks in tandum or Parallel and/or operating independantly by merely changing the INP(n) figure.

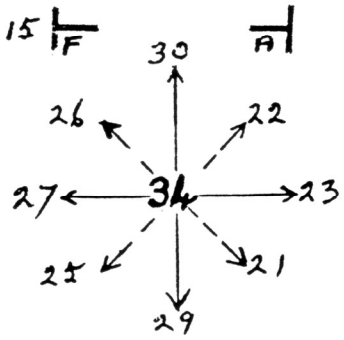
[The diagrams show ALL Directions, although the Program referred to does not use the DIAGONALS.]

The Joystick 'FIRE' button replaces the 'SPACE' key as is shown in the first half of the following line.

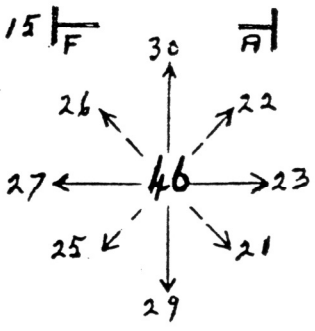
```
1040 J=(INP(34)AND31):IFJ=15,RUN ELSEIFINKEY$<>,1040ELSERUN
```



LEFT ONLY



BOTH LEFT & RIGHT



RIGHT ONLY

St. George & the Dragon.

- by Ken Clarke.

```
10 ' "SAINT GEORGE & THE DRAGON
20 '"BY KEN CLARKE AUG 1989
60 DIMM$(15,30),R(12),Q(12):Z=1
70 IFZ<6,COLOR,0ELSECOLOR,1
90 CLS
100 PRINT"▚▚▚
```

```
510 GX=GX+X
520 PRINT@(GY*32+GX-32),"G"
530 '          "[redacted]
540 IFGY=3ANDGX=16,850
550 '      "[redacted]
560 S=S+1
570 IFS/5<>INT(S/5)ORN+1>Z,610
580 N=N+1
590 M$(R(N),Q(N))="  "
600 '          "[redacted]
610 FORI=1TON
620 A=0
630 B=0
640 A=A-(GY<R(I))+(GY>R(I))
650 IFA<>0ANDM$(R(I)-A,Q(I))<>""m",710
660 A=0
670 B=B-(GX<Q(I))+(GX>Q(I))
680 '      "[redacted]
690 IFM$(R(I),Q(I)-B)=""m",760
700 '      "[redacted]
710 PRINT@(R(I)*32+Q(I)-32),"  "
720 R(I)=R(I)-A
730 Q(I)=Q(I)-B
740 PRINT@(R(I)*32+Q(I)-32),"&"
750 '      "[redacted]
760 IFR(I)=GYANDQ(I)=GX,800
770 NEXTI
780 GOTO390
790 '      "[redacted]
800 PRINT@388,"GEORGY BOY...YOU ARE DEAD"
810 PRINT@421,"YOU KILLED ";Z-1;" DRAGONS"
820 FORK=1TO32:COLORRND(7)+1,RND(1):PRINT"[redacted]";:NEXTK
830 SOUND20,4;25,4;25,3;25,1;25,4;29,3;27,1;25,4;24,3;22,1;20,5
835 COLOR,0:Z=1:GOTO890
840 '          "[redacted]
850 PRINT@385,"NICE ONE GEORGE YOU ARE A HERO"
860 IFZ=12,920
870 Z=Z+1
880 PRINT@418,"BET YOU CAN'T SLAY"Z"DRAGONS"
890 PRINT@453,"PRESS <SPACE> TO START"
900 J=(INP(34)AND31):IFJ=15,70ELSEIFINKEY$<>" ",900ELSE70
910 GOTO900
920 '      "[redacted]
930 PRINT@417,"YOU HAVE KILLED ALL 12 DRAGONS"
940 PRINT@453,"[redacted]"
950 DATA17,4,22,4,17,4,22,4,24,4,26,6,24,4,26,2,27,2,29,4,22,4
960 DATA26,2,24,2,22,2,21,2,22,6,0,4
970 DATA17,4,22,4,17,4,22,4,24,4,26,6,24,4,26,2,27,2,29,4,22,4
980 DATA26,2,24,2,22,2,21,2,22,6,0,4
990 DATA26,2,27,2,29,5,31,2,29,4,27,4,26,5,27,2,29,4,29,4
1000 DATA31,4,31,4,29,2,27,2,26,2,24,2,22,6,21,4,17,2
1010 DATA22,4,17,4,22,4,24,4,26,6,24,4,26,2,27,2,29,4,22,4
1020 DATA26,2,24,2,22,2,21,2,22,6,0,4
1030 FORI=1TO69:READF,T:SOUNDF,T:NEXT:RESTORE
1040 J=(INP(34)AND31):IFJ=15,RUNELSEIFINKEY$<>" ",1040ELSERUN
```

In this game for the VZ' the user acts the part of St. George. His mission to reach the damsel at the top of the screen. His task is, however, complicated by the dragons which appear from random positions. Every time he completes his task he has to start again - this time, with one more dragon. There being a maximum of 12 dragons. These dragons are shown by the & sign and St. George and the damsel by the G and # respectively. The player moves by using the cursor keys or either the Left or Right Joy Sticks. i.e. both the keyboard and joysticks are active simultaneously - the 'fire' button replaces the space key.

MICRO MAGIC

RATTLESNAKE

My mud-map is just a way of putting thoughts on paper and falls short of an authentic FLOWCHART. In a genuine FLOWCHART there are even meanings to the shape of the boxes. In this mud-map please note that the SYMBOLS sub-routines are BEFORE the program. This is because computers search for GOTO and GOSUB line numbers from the lowest to the highest. As the SYMBOL sub-routines will be used many times the program will run faster if these sub-routines are placed near the top. On the other hand the Screen display may only be used once, so to the end it goes. When the program is written we may find we have missed out a big block of line numbers, but this does not matter at all. Big line numbers take the same amount of memory space as small ones; 2 bytes. The numbers down the side of the symbols in this mud-map were really added later when we had nutted out a system for identifying the five symbols selected and printed on the screen. More later...

```
100 ##############     10000 ##################
    # CLS  CLEAR #...........# SCREEN DISPLAY #
    ##############           # PRINT"WIN"     # W
         :                   # PRINT"CREDIT"  # C
         :                   ##################
2000 ##############      3000 ##########
    #  IFC@0THEN #           # COINS? #
    #------------#...........# PRINTC #
    #   INKEY$   # I$        # PRESSP #
    #   C=C-1    #           ##########
    #------------#
    # FORI=1TO5  #      1000 ##########
    #------------#...........#  ACE   # 1
    #  N=RND(7)  #      1100 ##########
    #------------#           #  TEN   # 2
    # SELECT AND #      1200 ##########
    # PRINT FIVE #           #  JACK  # 3
    #  SYMBOLS   #      1300 ##########
    #------------#           # QUEEN # 4
    #  FORJ=1TO5 #      1400 ##########
    #------------#           #  KING  # 5
    #   CHANGE   #      1500 ##########
    #   SYMBOLS  #           #  SNAKE # 6
    # FIVE TIMES #      1600 ##########
    #------------#           #  JOKER # 7
    #    NEXT    #           ##########
    #------------#
    #    NEXT    #   RATTLESNAKE MUD-MAP.
    ##############
         :
4000 ##############      8000 ##########
    # CHECK FOR  #...........#UPDATE C#
    #    WINS    #           #UPDATE W#
    ##############           #JACKPOTS#
         :                   ##########
         :
   ANOTHER SPIN
         :
         :
         :......GOTO2000 OR 3000 IF CREDIT NIL
```

For those who are denied the opportunity of playing Poker Machines let me describe what happens. In its simplest form there are four reels which have pictures, or symbols, on the outside of the rim. After putting a coin in the slot you then pull a handle to make the reels spin. They will then stop, one by one, revealing four symbols. If all of them are identical pictures then you win and your winnings come pouring out of the machine. Originally the player hoped to pull four LEMONS, hence the name Fruit Machines, but there's not many of those left now. Modern technology has produced much more complex affairs, but the principal is the same. An effort has been made to make this program emulate a real machine, short of attaching a handle to the VeeZed....

DARWIN CASINO WAS NEVER LIKE THIS!!!

Most modern Poker Machines now have micro processors inside,being distant relatives of your VeeZed.Instead of handles to pull,many of them have buttons to press.You can now lose the rent very much faster.And,instead of spewing your winnings out,they are displayed in a window while your credit (if any) is shown in another window.The original 4-reeler has given way to machines with 5, 6 or more reels.You can even win (or lose) on up to FIVE reels all at the same time,depending on which button you press.
There are a large variety of pictures or symbols,and winning combinations.Often the WINS are read from left to right.A TEN in first place might win you 2 coins,two TENS may be 5.The schedule of wins can look like this.....

TEN	TEN	TEN	TEN	TEN	100		JOKER	JOKER	JOKER	JOKER	JOKER	1000
TEN	TEN	TEN	TEN	-	50		JOKER	JOKER	JOKER	JOKER	-	500
TEN	TEN	TEN	-	-	20		JOKER	JOKER	JOKER	-	-	100
TEN	TEN	-	-	-	5							
TEN	-	-	-	-	2							

JACKS, QUEENS, KINGS, ACES and JOKERS usually requires at least three of a kind,from the left, to win, and what you win depends on which symbol it is.ACES, KINGS and JOKERS generally pay better than the others.In this program there is a SNAKE, and SNAKES pay better than any other symbol.Big payouts are known as JACKPOTS.
-Snakes are called RATTLESNAKE !!!

And so to begin.Please keep an eye on the mud-map.It should help you understand some of the more complex explanations.We start with line 100 followed by the Screen Display.This will then be followed by what might be termed the Main Stem.That's the ACTION part of the program that controls and directs all the Branches (sub-routines).

```
100 CLS:CLEAR:GOSUB10000:GOSUB3000: GOTO 2000
```

CLEAR on its own,sets all variables to zero.
GOSUB 1000 will draw the colourful screen display.
GOTO 2000 jumps over the sub-routines containing all the SYMBOLS.
Remember, we will be putting the SYMBOLS sub-routine near the top to help the running speed.

```
9999 '"[illegible]
10000 COLOR3,1
10010 PRINT@0,"[illegible]R[illegible]A[illegible]T[illegible]T[illegible]L[illegible]E[illegible]S[illegible]N[illegible]A[illegible]K[illegible]E[illegible]":COLOR8
10020 FORI=28704TO29183:POKEI,143:NEXT
10030 COLOR8:FORI=160TO191:PRINT@I,"[illegible]":NEXT
10040 B=192:FORI=1TO5:PRINT@B,"[illegible]     [illegible]     [illegible]     [illegible]     [illegible]     [illegible]"
10050 B=B+32:NEXT
10060 FORI=352TO383:PRINT@I,"[illegible]":NEXT
10070 PRINT@67,"[illegible]":PRINT@81,"[illegible]"
10080 RETURN
```

After selecting the COLOR,line 10010 prints the title.
10020 POKEs colour into an area of screen quickly.
10030,10040 and 10050 draws the windows in which the SYMBOLS will appear.
Use 5 SHIFT Z graphics for the SPACES between SHIFT J graphics.
10060 finishes the screen display, 10070 prints WIN and CREDIT.
and 10080 sends the program back to 100.

```
2000 IFC=0THEN3000
2010 PRINT@71,W:PRINT@88,C
2020 COLOR1:C=C-1:PRINT@71,"▒▒▒▒▒▒▒▒▒▒▒▒":PRINT@88,"▒▒▒▒▒":PRINT@88,C
2030 FORI=1TORND(5):L=0:A=194:FORJ=1TO5:N=RND(7)
2040 IFN=1THENGOSUB1000'   ACE
2042 IFN=2THENGOSUB1100'   TEN
2044 IFN=3THENGOSUB1200'  JACK
2046 IFN=4THENGOSUB1300' QUEEN
2048 IFN=5THENGOSUB1400'  KING
2050 IFN=6THENGOSUB1500' SNAKE
2052 IFN=7THENGOSUB1600' JOKER
2060 A=A+6:NEXT
2070 A=A+32:NEXT
2080 SOUND31,1:T=0:GOSUB4000
2090 PRINT@71,W:PRINT@88,C:W=0:GOTO3050
```

Line 2030 contains two loops.The first will count the number of symbol changes there will be for each SPIN.The second loop will count the five symbols to be printed on the screen. A will determine where the symbols will be printed,being increased by 6 to move the printings across the screen. L will be used to determine what symbols are in the five windows after each spin and used to determine whether a winning combination has been printed,or not.There is a departure from the mud-map in the first loop.We have used RND(5) instead of just 5.This will increase the uncertainty of whether a winning combination has been pulled or not.The number of changes will vary for each spin.

Lines 2040 to 2052 direct the program depending on the value of N. Each GOSUB is to a different symbol.
The dots are to let you know how many spaces to put in the REM statements to get them neatly under one another.
2060 increases A by 6 to move the symbols across the screen.This is followed by NEXT which ends the I loop.
2070 ends the J loop.2080 marks the end of the spin with a short SOUND then goes to 4000 to have the symbols checked for a WIN.2090 will upgrade WIN W and CREDIT C. The W is made 0 ready for the next spin and the program goes to 3050 which is the INKEY$ for collecting another P (for pull handle).

QUICK TYPING

Next is seven subroutines.Each one prints a different symbol.And,you have a choice!!! You can either just type them all in,one after the other,or do it in the following way....

As you no doubt know,if after typing a program line and hitting RETURN,you then move the curser onto the line and change it,the original line is not lost.You would then have two lines.If you look at the 7 sub-routines you will see that they are very similar to each other.Using the curser you COULD enter seven lines at a time.1000 can be overtyped to produce 1100,1200,1300,1400,1500 and 1600. The other lines would need N= and graphics changed as well as the line numbers.

SECRET CODE!

Various methods of identifying winning combinations were considered.Uppermost was the requirement for preserving the running speed.A player would not like to have to wait a couple of seconds after a losing spin,before being able to spin again.It was decided to allocate a number to each of the symbols (see mud-map).And, this is how it works....

If, say ,an ACE stops in 1st place, then L becomes 10000.Should a TEN stop in 2nd place, N will then become 12000.If 3rd place is a JOKER,L becomes 12700.With a QUEEN and JACK in 4th and 5th places, L ends up as 12743.It really is a SECRET CODE!

```
22156 = TEN TEN ACE KING SNAKE
54734 = KING QUEEN JOKER JACK QUEEN
11111 = JACKPOT!!!
66666 = RATTLESNAKE!!!
```

Here are the seven sub-routines...

The following seven sub-routines show 5 letters in REMs.These are to let you know what graphics to use between the quotes.ASSYYS would be the graphics on those keys.You should still put the letters in REM as a check.

```
1000 IFN=1ANDA=194THENL=L+10000
1001 IFN=1ANDA=200THENL=L+1000
1002 IFN=1ANDA=206THENL=L+100
1003 IFN=1ANDA=212THENL=L+10
1004 IFN=1ANDA=218THENL=L+1
1010 FORS=0TO4:COLOR4:PRINT@A,"▀▀▀▀▀▀▀▀":A=A+32:NEXT:A=A-160:COLOR5
1020 PRINT@A,      "      "'ZZZZZ
1021 PRINT@A+32,   " ▀▀▀▀ "'ZJJJZ
1022 PRINT@A+64,   " ▀▀▀▀ "'ZJJJZ
1023 PRINT@A+96,   "      "'ZZZZZ
1024 PRINT@A+128,  " ▀▀▀▀ "'ZJJJZ
1030 RETURN
1040 IFN=1THEN:GOSUB2000'  ACE
1050 IFN=2THEN:GOSUB2100'  TEN
1060 IFN=3THEN:GOSUB2200' JACK
1070 IFN=4THEN:GOSUB2300'QUEEN
1080 IFN=5THEN:GOSUB2400' KING
1090 IFN=6THEN:GOSUB2500'SNAKE
1100 IFN=2ANDA=194THENL=L+20000
1101 IFN=2ANDA=200THENL=L+2000
1102 IFN=2ANDA=206THENL=L+200
1103 IFN=2ANDA=212THENL=L+20
1104 IFN=2ANDA=218THENL=L+2
1110 FORS=0TO4:COLOR4:PRINT@A,"▀▀▀▀▀▀▀▀":A=A+32:NEXT:A=A-160:COLOR5
1120 PRINT@A,     " ▀▀ ▀▀▀ "'ASYYS
1121 PRINT@A+32,  " ▀▀▌ ▌ "'IUUZU
1122 PRINT@A+64,  " ▀▀▌ ▌ "'IUUZU
1123 PRINT@A+96,  " ▀▀▌ ▌ "'IUUZU
1124 PRINT@A+128," ▀▀ ▀▀▀ "'DFTTF
1125 RETURN
1130 RETURN
1140 PRINT@71,W:PRINT@88,C
1150 W=0:GOTO3050
```

```
1200 IFN=3ANDA=194THENL=L+30000
1201 IFN=3ANDA=200THENL=L+3000
1202 IFN=3ANDA=206THENL=L+300
1203 IFN=3ANDA=212THENL=L+30
1204 IFN=3ANDA=218THENL=L+3
1210 FORS=0TO4:COLOR4:PRINT@A,"▀▀▀▀▀▀▀▀":A=A+32:NEXT:A=A-160:COLOR6
1220 PRINT@A,     "▀▀▀▀▀▀"'JJJTW
1221 PRINT@A+32,  "▀▀  ▌"'JJJZI
1222 PRINT@A+64,  "▀▀  ▌"'JJJZI
1223 PRINT@A+96,  "▌ ▀▀ ▌"'UDTZI
1224 PRINT@A+128,"▙▄▄▄▄▟"'EYYYR
1230 RETURN
1300 IFN=4ANDA=194THENL=L+40000
1301 IFN=4ANDA=200THENL=L+4000
1302 IFN=4ANDA=206THENL=L+400
1303 IFN=4ANDA=212THENL=L+40
1304 IFN=4ANDA=218THENL=L+4
1310 FORS=0TO4:COLOR4:PRINT@A,"▀▀▀▀▀▀▀▀":A=A+32:NEXT:A=A-160:COLOR2
1320 PRINT@A,     "▛▀▀▀▀▜"'QTTTW
1321 PRINT@A+32,  "▌ ▀▀ ▐"'UIJUI
1322 PRINT@A+64,  "▌ ▀▀ ▐"'UIJUI
1323 PRINT@A+96,  "▌ ▀▀ ▐"'UDFFI
1324 PRINT@A+128,"▀▀ ▀▜"'JJUTW
1330 RETURN
1400 IFN=5ANDA=194THENL=L+50000
1401 IFN=5ANDA=200THENL=L+5000
1402 IFN=5ANDA=206THENL=L+500
1403 IFN=5ANDA=212THENL=L+50
1404 IFN=5ANDA=218THENL=L+5
1410 FORS=0TO4:COLOR4:PRINT@A,"▀▀▀▀▀▀▀▀":A=A+32:NEXT:A=A-160:COLOR7
1420 PRINT@A,     "▛▀▀▀▀▜"'QWJTW
1421 PRINT@A+32,  "▙▛▀▟▟"'JIFRJ
1422 PRINT@A+64,  "▙▗▀▟▟"'JADJJ
1423 PRINT@A+96,  "▙▙▗▜▟"'JIEDJ
1424 PRINT@A+128,"▙▄▟▟▟"'EYJER
1430 RETURN
1500 IFN=6ANDA=194THENL=L+60000
1501 IFN=6ANDA=200THENL=L+6000
1502 IFN=6ANDA=206THENL=L+600
1503 IFN=6ANDA=212THENL=L+60
1504 IFN=6ANDA=218THENL=L+6
1510 FORS=0TO4:COLOR4:PRINT@A,"▀▀▀▀▀▀▀▀":A=A+32:NEXT:A=A-160:COLOR2
1520 PRINT@A,     "▛▜▄▄▄"'QQEYY
1521 PRINT@A+32,  "▀▀ ▄▟"'DTZYR
1522 PRINT@A+64,  "▝▄▄▙▟"'FYSEY
1523 PRINT@A+96,  "▝▌▙▄▌"'FUEYI
1524 PRINT@A+128,"▙▟  ▙▟"'EUZIR
1530 RETURN
1600 IFN=7ANDA=194THENL=L+70000
1601 IFN=7ANDA=200THENL=L+7000
1602 IFN=7ANDA=206THENL=L+700
1603 IFN=7ANDA=212THENL=L+70
1604 IFN=7ANDA=218THENL=L+7
1610 FORS=0TO4:COLOR4:PRINT@A,"▀▀▀▀▀▀▀▀":A=A+32:NEXT:A=A-160:COLOR8
1620 PRINT@A,     "▄▄▄▄▄"'AYYYS
1621 PRINT@A+32,  "▌▄▄▐"'IAYSU
1622 PRINT@A+64,  "▟▟▟▟▟"'JOKER
1623 PRINT@A+96,  "▌▀▀▐"'IDTFU
1624 PRINT@A+128," ▀▀▀▀▀ "'DTTTF
1630 RETURN
```

The random value of N directs the program to one of these sub-routines.
The IF statements will make L the symbol code according to the position the symbol is to be printed.
The loop (FOR S=0 TO 4) prints a blank symbol between each picture symbol.
The ZZZZZ can be any graphic you choose. A=A-160 brings A back to whatever it was before being used in the loop ready for printing the symbol in the next five lines.By stacking the symbols directly above one another,the finished symbol can be seen.

The next sub-routine is really two in one.The first part will only be used at the beginning and whenever the player loses all his credit.The second part is the INKEY$ for pressing P to spin the reels.

```
2999 'INPUT COINS
3000 FORI=384TO415:PRINT@I," ":NEXT
3010 PRINT@392,"[illegible]";:INPUTC
3020 IFC<1ORC>999THEN3010
3022 PRINT@71,W:PRINT@88,C
3030 PRINT@389,"[illegible]":SOUND20,8
3040 FORI=29056TO29087:POKEI,143:NEXT
3049 ' PULL HANDLE
3050 IFC=0THEN3000
3060 Z$=INKEY$:Z$=""
3070 Z$=INKEY$:IFZ$=""THEN3060
3080 IFZ$="P"THEN2000ELSE3060
```

Because INPUTs cannot be entered unless the rest of the line is blank,line 3000 clears away the color graphics to allow the printing of the INPUT. Just leave a SPACE between the quotes.
3020 limits the coins to not less than 1 and no more than 999.
After printing PRESS P etc. the POKEs replace the background color.
The program GOSUBs to here for every spin.After checking that there is still some credit,the INKEY$ waits for P to be pressed.

How's your typing?.The next bit looks like heavy slogging.But it's not so bad.
This is where we decypher the SECRET CODE. As the figures used were between 1 and 7, we can use 0 and 8 to isolate the winning combinations.As 22222 could be accepted by the IF L>22220 AND L<22228,the RETURN at the end of the 22222 line prevents this happening.
You may want to REM lines 4046 and 4048,which are WINS for SNAKES in first and second places,or reduce the amount won,as these make the chances of going bust almost impossible.You may like to add a few winning combinations of your own.

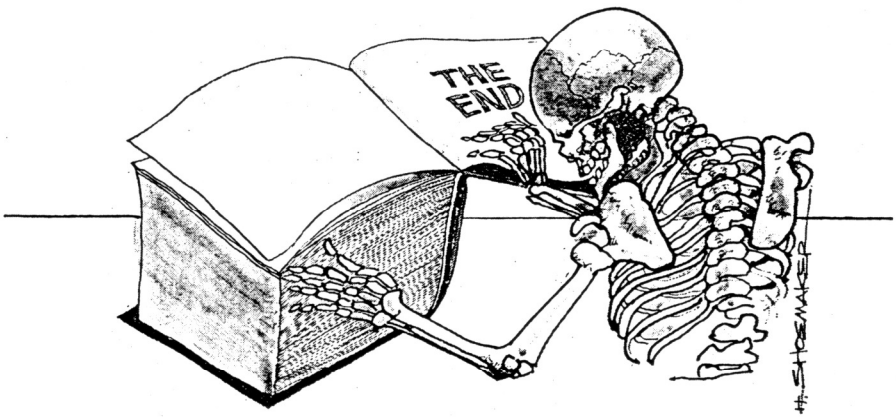
```
3999 ' PAYS FOR WINS
4000 IFL=11111THENW=2000:C=C+W:GOSUB8000:RETURN
4002 IFL>11110ANDL<11118THENW=1000:GOSUB8000:RETURN
4004 IFL>11100ANDL<11188THENW=500:GOSUB8020:RETURN
4006 IFL=22222THENW=50:C=C+W:SOUND30,6;18,4;30,4;18,8:RETURN
4008 IFL>22220ANDL<22228THENW=20:C=C+W:SOUND31,6;19,8:RETURN
4010 IFL>22200ANDL<22288THENW=10:C=C+W:SOUND31,8:RETURN
4012 IFL>22000ANDL<22888THENW=5:C=C+W:SOUND18,4:RETURN
4014 IFL>20000ANDL<28888THENW=2:C=C+W:SOUND16,2:RETURN
4016 IFL=33333THENW=400:C=C+W:GOSUB8000:RETURN
4018 IFL>33330ANDL<33338THENW=200:C=C+W:GOSUB8000:RETURN
4020 IFL>33300ANDL<33388THENW=100:C=C+W:SOUND31,6;19,8:RETURN
4022 IFL=44444THENW=400:C=C+W:GOSUB8000:RETURN
4024 IFL>44440ANDL<44448THENW=200:C=C+W:GOSUB8000:RETURN
```

```
4026 IFL>44400ANDL<44488THENW=100:C=C+W:SOUND31,6;19,8:RETURN
4028 IFL=55555THENW=500:C=C+W:GOSUB8020:RETURN
4030 IFL>55550ANDL<55558THENW=300:C=C+W:GOSUB8000:RETURN
4032 IFL>55500ANDL<55588THENW=100:C=C+W:SOUND31,6;19,8:RETURN
4034 IFL=77777THENW=1000:C=C+W:GOSUB8000:RETURN
4036 IFL>77770ANDL<77778THENW=5000:C=C+W:GOSUB8020:RETURN
4038 IFL>77700ANDL<77788THENW=200:C=C+W:GOSUB8010:RETURN
4040 IFL=66666THENW=10000:C=C+W:GOSUB8030:RETURN
4042 IFL>66660ANDL<66668THENW=5000:C=C+W:GOSUB8000:RETURN
4044 IFL>66600ANDL<66688THENW=200:C=C+W:GOSUB8020:RETURN
4046 IFL>66000ANDL<66888THENW=50:C=C+W:GOSUB8020:RETURN
4048 IFL>60000ANDL<68888THENW=20:C=C+W:SOUND30,4;18,8:RETURN
4050 RETURN
```

The next sub-routine is also the last. sigh With all that typing practice you should have no problems here.Ha! Ha!.
When entered you can check it by entering RUN9000.
There's no prizes for guessing the tune.

```
8999 'MUSICAL FANFARES
9000 SOUND16,2;18,2;20,4;20,2;20,2;18,2;0,2;16,2;18,2;20,2;16,2
9002 SOUND13,2;15,2;16,2;0,2;11,2;16,2;20,2;23,4;21,2;20,2;18,4
9004 SOUND18,2;18,2;16,6:RETURN
9020 SOUND13,1;14,1;15,1;16,1;17,1;18,1;19,1;20,1;21,1;22,1;23,1
9030 SOUND28,1;27,1;25,1;23,1;21,1;20,1;18,1;16,1;28,2;16,4
9050 :RETURN
```

A FULL LISTING OF RATTLESNAKE NEXT ISSUE



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